

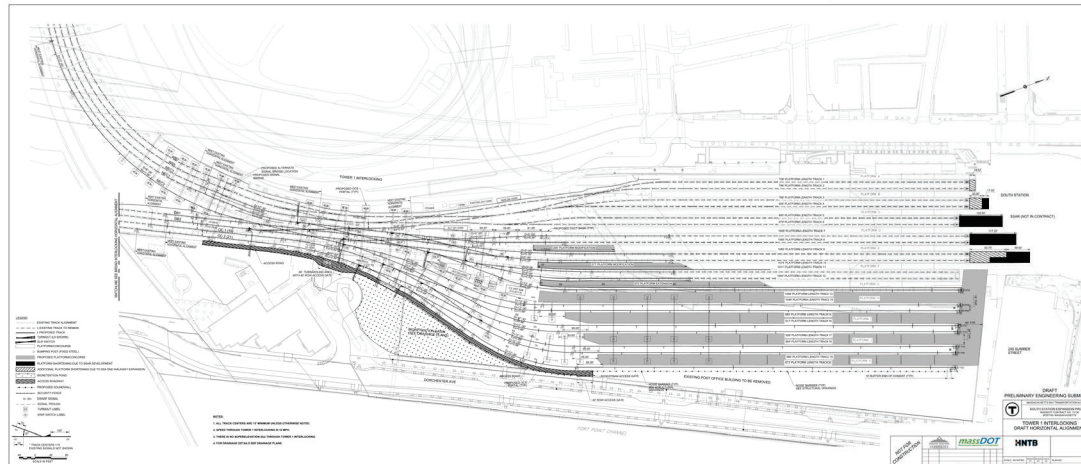
Draft
2/3/20

SOUTH STATION EXPANSION TOWER 1 INTERLOCKING EARLY ACTION PROJECT

Capital Programs Committee
February 5, 2020

Summary

- In November 2018, FRA issued a funding opportunity under Federal-State Partnership for State of Good Repair Program
- MassDOT/MBTA applied for South Station Tower 1 Interlocking Early Action Project (EAP)
 - Having received the notice of the grant award from the FRA, this presentation will review funding and project scope
- Purpose and scope of the EAP were developed under the overall South Station expansion Project.



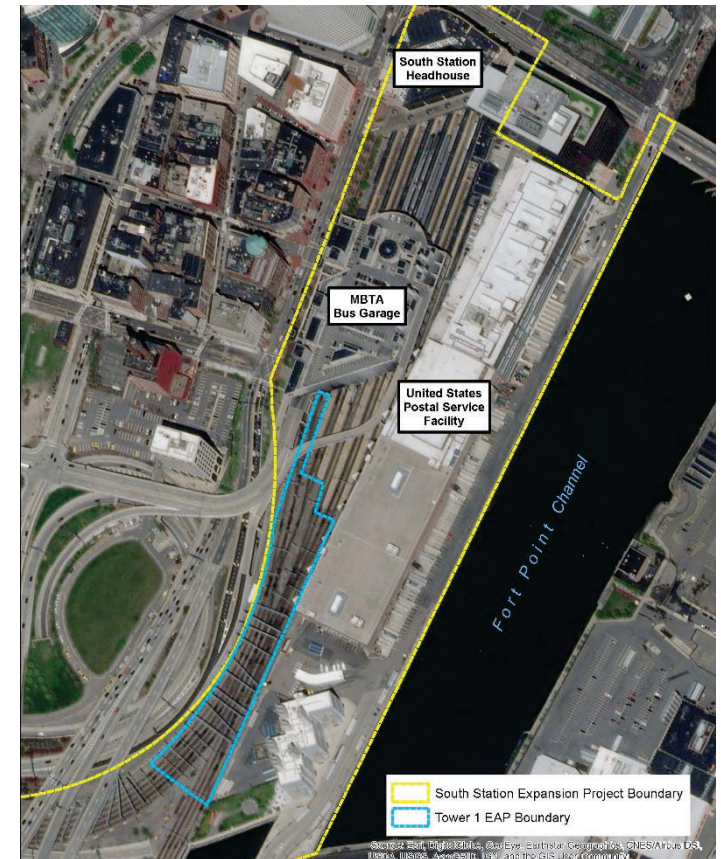
Tower 1 Interlocking Early Action Project (EAP)

CHALLENGES

- The existing Tower 1 signal system is outdated and hinders service with recurring breakdowns.
- A 5-minute shutdown during peak periods can create residual delays that affect thousands of passengers daily.
- Upgrades to the Tower 1 Interlocking are necessary to maintain current services, as well as to support future growth anticipated by both the MBTA and Amtrak.

BENEFITS

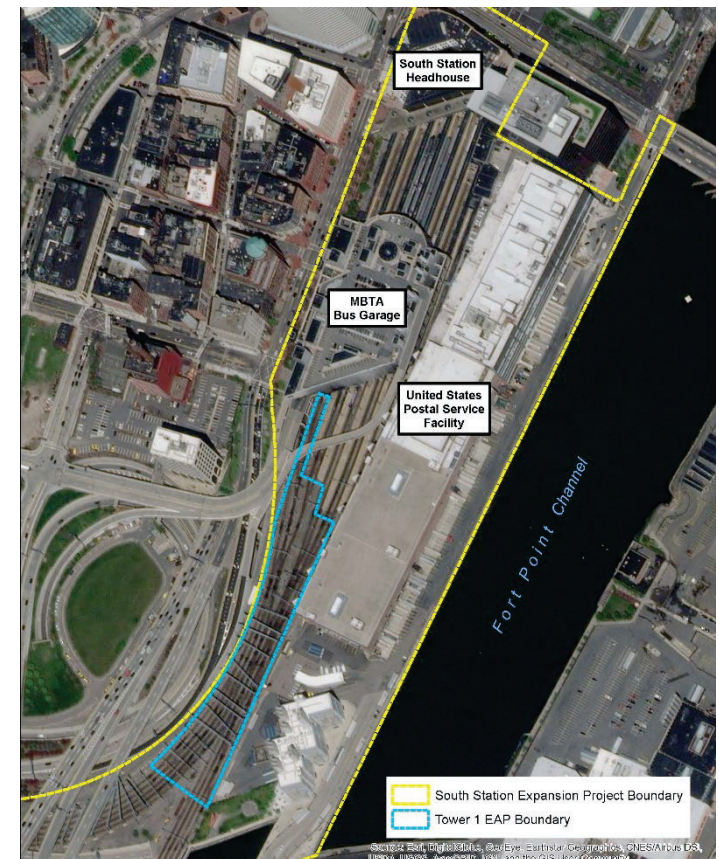
- Project will limit the signal failures and provide immediate operational and reliability benefits to the MBTA and Amtrak.
- Project will improve the resiliency of Tower 1 to the effects of climate change (flooding, extreme rain/snow, heat stress).



Tower 1 Interlocking Early Action Project (EAP)

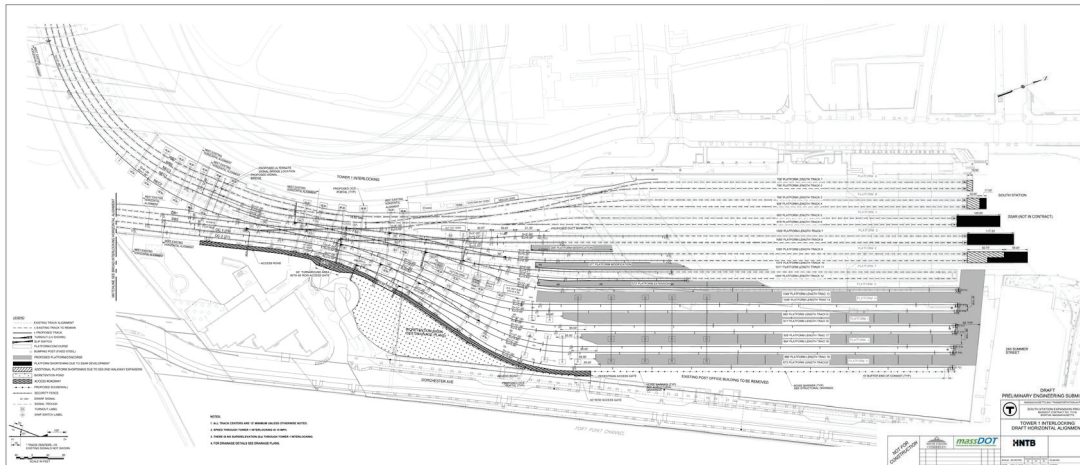
Tower 1 EAP includes:

- Replacement of existing signal system with microprocessor system
- Provision of new Central Instrument House at a new location
- Replacement of track infrastructure in-kind within the interlocking
- Replacement of existing wayside shelters and cases
- Installation of switch heaters
- Provision of trough systems to improve access to cables
- Provision of new emergency generator and transformer
- Installation of new MBTA lighting system
- Upgrade to existing communications related to Centralized Electrification and Traffic Control (CTEC) system



FRA Grant Application

- MassDOT/MBTA submitted an application on March 18th, 2019 for South Station Tower 1 Interlocking Early Action Project (EAP) for the amount of \$41,183,845
- Purpose of the EAP is to limit signal failures and provide immediate operational, reliability, and resiliency benefits to the MBTA and Amtrak
- MassDOT/MBTA were notified in August 2019 that we were successful in securing up to \$41,183,845 in FRA grant funds towards the cost of the EAP



Tower 1 Interlocking Early Action Project Cost and Funding Breakdown

Funding Source	Project Contribution Amount	Percentage of Total Cost
FRA Grant	\$41,183,845	50%
Grantee	\$41,183,845	50%
Total Project Cost	\$82,367,690	100%

- The cost estimate associated with final design of the EAP was funded through the existing South Station Expansion Project
- Grant award is for construction of Tower 1 Early Action Project including: trackwork, communications, and signal systems
 - FRA grant funds will be added to the 2021-2025 MBTA CIP
- Grantee funds are already fully programmed in the 2020-2024 CIP
 - \$32.4 million contribution from the MBTA through the Northeast Corridor PRIIA Baseline Capital Charge (BCC) program
 - \$8.6 million contribution from Amtrak through the Attleboro Line Agreement Settlement Funds

Request for Board Authorization

- This presentation is to request approval to transfer FRA grant funding from MassDOT to the MBTA to execute the Tower 1 Interlocking Early Action Project
- This administrative action will allow the MBTA to have the funds in place in order to start the procurement process of awarding construction contracts for the Tower 1 Interlocking Early Action Project

Board Authorization Vote

- We hereby request a favorable vote from the MassDOT Board of Directors to authorize and approve a contract between MassDOT and MBTA to transfer the FRA grant funds in an amount of up to \$41,183,845 for the construction and other capital costs needed to execute the construction of the Tower 1 Interlocking Early Action Project
- Additionally, it is requested that the FMCB Board of Directors vote favorably to approve the contract between MassDOT and the MBTA to accept the FRA grant funds in an amount of up to \$41,183,845 to be used in conjunction with the MBTA match funds for the construction and other capital costs to execute the construction of the Tower 1 Interlocking Early Action Project



Project Timeline

- Design was completed in late December 2019.
- Construction phase transitioned to MBTA in early January 2020.
- MassDOT and MBTA submitted required grant documentation to FRA, including pre-award authority letter, statement of work, budget and schedule forms in early January 2020.
- Grant funds expected to be issued and obligated by May or June 2020.
- Construction estimated to commence in Summer 2020, and undertaken by Amtrak, under a dedicated Project Initiation (PI) agreement.